ABSTRACT

There is provided a novel extractant for palladium capable of improving an extraction speed in comparison with a case of utilizing a DHS being a conventional extractant, and a method for separation and recovery of palladium utilizing the same. The present invention provides a method for obtaining a palladium-containing aqueous solution by bringing an organic phase containing an extractant of a sulfur-containing diamide compound represented by the following structural formula (1):

$$(1)$$

$$\begin{array}{c} R_1 \\ R_2 \end{array} N \begin{array}{c} R_3 \\ R_2 \end{array} N \begin{array}{c} R_1 \\ R_2 \end{array}$$

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in which R₁ and R₂ each represent a group selected from a chain hydrocarbon group having 1 to 18 carbon atoms which may be branched, an alicyclic hydrocarbon group having 1 to 10 carbon atoms, and an aromatic hydrocarbon group having 1 to 14 carbon atom, and R₃ represents a group represented by {(CH₂)_nS(CH₂)_m}_L in which n, m and L each represent an integer of from 1 to 4; extracting palladium by the organic phase; and conducting a back-extraction of palladium, extracted by the organic phase, with an aqueous solution of hydrochloric acid containing thiourea.